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OCT 22 2003
PATENT & TRADEMARK OFFICE

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application of: John T. Lai

Customer No.: 37535

Serial No.: 10/681,679

Docket No.: 200CT015D

Filed: October 8, 2003

Art Unit:

Examiner:

For: S-(α,α'-DISUBSTITUTED-α"-ACETIC ACID) SUBSTITUTED DITHIOCARBONATE DERIVATIVES FOR CONTROLLED RADICAL POLYMERIZATIONS, PROCESS AND POLYMERS MADE THEREFROM

CERTIFICATE OF MAILING

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10/20/03
Date of Deposit

Cathy Bartel
Cathy Bartel

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Transmitted herewith is/are the following document(s) related to the above-identified application:

Acknowledgment of Receipt Card
Information Disclosure Statement
Form PTO-1449 and References Cited

X No additional fee is required.
X Charge any additional fees except issue fee or credit overpayment to Deposit Account No. 50-1501. **A DUPLICATE OF THIS SHEET IS ENCLOSED.**

Respectfully submitted,

Thoburn T. Dunlap

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Date: 10-20-03
200CT015Dtl.doc

OIPE JC184
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Applicant: John T. Lai — **Custom r No.: 37535**

Serial No: 10/681,679 — Examiner:

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Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

Sir,

This invention relates to dithiocarbonate derivatives, along with a process for preparing the same. The dithiocarbonate compounds can be utilized as initators, chain transfer agents and/or terminators in controlled free radical polymerizations. The dithiocarbonates can be used to produce polymers having narrow molecular weight distribution. Advantageously, the compounds of the present invention can also introduce functional groups into the resulting polymers. The dithiocarbonate compounds have low odor and are substantially colorless.

As authorized and encouraged under 37 C.F.R. §1.97-1.99, applicant hereby cites as a means of complying with the duty of disclosure set forth in 37 C.F.R. §1.56, the following patents and/or documents, which the Examiner should consider with respect to the above-identified United States Patent Application:

U.S. DOCUMENTS		
PATENT/DOCUMENT NO.	**DATE**	**NAME/COUNTRY**
3,285,945	November 15, 1966	Wember
3,285,949	November 15, 1966	Siebert
3,770,698	November 6, 1973	Riew
3,928,491	December 23, 1975	Waters
3,992,432	November 16, 1976	Napier et al.
4,769,419	September 6, 1988	Dawdy
5,055,515	October 8, 1991	Backderf
5,140,068	August 18, 1992	Siebert et al.
5,157,077	October 20, 1992	Siebert et al.
5,198,510	March 30, 1993	Siebert et al.
5,258,445	November 2, 1993	Sperk Jr., et al.
5,280,068	January 18, 1994	Siebert et al.
5,312,956	May 17, 1994	Bertsch
5,385,963	January 31, 1995	McBain et al.
6,153,705	November 28, 2000	Corpart et al.
6,380,335	April 30, 2002	Charmot et al.
6,395,850	May 28, 2002	Charmot et al.
FOREIGN DOCUMENTS		
98/01478	January 15, 1998	WIPO
99/05099	February 4, 1999	WIPO
99/31144	June 24, 1999	WIPO
99/35177	July 15, 1999	WIPO
ARTICLES/OTHER DOCUMENTS		
World Polymer Congress, 37th International Symposium on Macromolecules, July 12-17, 1998, Gold Coast, Australia		
"Living Free-Radical Polymerization by Reversible Addition-Fragmentation Chain Transfer: The RAFT Process", John Chiefari, et al., CSIRO *Molecular Science, Bag 10,* Clayton South. Clayton, Victoria 3169, Australia, Received March 27, 1998, Revised Manuscript Received June 10, 1998		
"The Synthesis of Organic Trethiocarbonates[1]", H.C. Godt, Jr., and R.E. Wann, *Journal of Organic Chemistry*, 26, 4047 (1961)		
"Phase-Transfer Synthesis of Symmetrical and Unsymmetrical Dialkyl Trithiocarbonates", Iacopo Degani, et al, Synthesis, p. 894 (1986)		
"A New Form of Controlled Growth Free Radical Polymerization", Julia Kristina, et al., CSIRO, Division of Chemicals and Polymers, *Macromol, Symp.* III, 13-23 (1996)		

"One Pot Phase Transfer Synthesis of Trithiocarbonates from Carbon Disulphide and Alkyl Halides", Albert W.M. Lee, et al, *Synthetic Comm.* 18 (13), 1531 (1988)
"A Novel One-step Synthesis of Symmetrical Dialkyl Trithiocarbonates", Man-kit Leung, et al, *Journal of Chemical Research* (S), 1995, 478-479
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Yagei and Schnabel in *Progress in Polymer Science* 15, 551 (1990)
Polymer Handbook, 3rd Edition, Greenley, R.Z. (Brandup, J. and Immergut, E.H. Eds.), Wiley: New York, 11-53 (1989)
"The Chemistry of Free Radical Polymerization", Moad and Solomon, Pergamon, London, 53-95 (1995)
"Telechelic Polymers: Synthesis and Applications", Eric J. Goethe, CRC Press, Boca Raton, Florida (1989)

In accordance with 37 CFR 1.98(a)(2)(i), enclosed are copies of only the foreign and non-patent documents for the express purpose of providing the Patent and Trademark Office with an ample opportunity to evaluate the same and to arrive at an independent assessment of its materiality, if any, with regard to the examination of the application.

An official action considering the enclosed items is earnestly solicited.

Respectfully submitted,

Noveon, Inc.

Thoburn T. Dunlap

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Attorney Docket No.: 200CT015D

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Form PTO-1449 U.S. Department of Commerce Patent and Trademark Office LIST OF PRIOR ART CITED BY APPLICANT (Use several sheets if necessary)	Atty. Docket No.: 200CT015D	Serial No.: 10/681,679
	Applicant: John T. Lai	
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